



iPhone 4 Verizon Display Assembly Replacement

Replace a cracked front panel or a broken display on your Verizon iPhone 4.

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INTRODUCTION

Use this guide to replace a cracked front panel or a broken LCD.

After successfully replacing the display assembly, protect your new display from scratches by installing a [screen protector](#).



TOOLS:

- [Phillips #000 Screwdriver](#) (1)
- [iFixit Opening Tools](#) (1)
- [2.5 mm Flathead Screwdriver](#) (1)
- [P2 Pentalobe Screwdriver iPhone](#) (1)
- [iPhone Standoff Screwdriver Bit](#) (1)

Optional

- [64 Bit Driver Handle](#) (1)

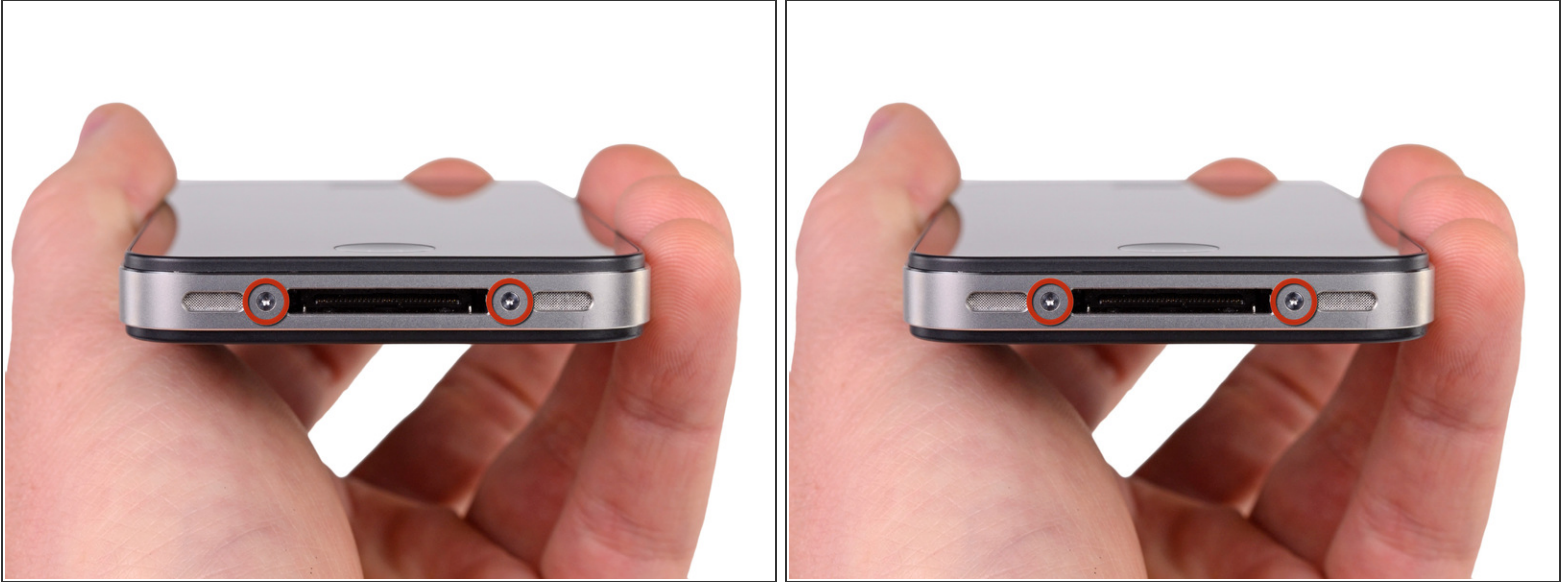
Optional






PARTS:

- [iPhone 4 LCD Screen and Digitizer \(CDMA/Verizon\)](#) (1)
- [iPhone 4 and 4S Screen Protector](#) (1)
- [iPhone 4/4s Test Cable for LCD Screen and Digitizer](#) (1)

Step 1 — Rear Panel



-  Before you begin, discharge your iPhone battery below 25%. A charged lithium-ion battery can catch fire and/or explode if accidentally punctured.
- Power off your iPhone before beginning disassembly.
- Your phone's rear cover may have two #000 Phillips screws **or** Apple's 5-Point "Pentalobe" screws. Check which screws you have, and ensure you also have the correct screwdriver in order to remove them.
- Remove the two 3.6 mm Pentalobe or Phillips #000 screws next to the dock connector.
-  During reassembly, we recommend you replace the 5-point screws with equivalent Phillips screws. Our [Liberation Kit](#) provides the tools and screws needed to replace the Pentalobe screws with Phillips screws.
-  The 5-Point Screwdriver should only be used once, as it has the potential to strip the screws.

Step 2



- Push the rear panel toward the top edge of the iPhone.

i The panel will move about 2 mm.

Step 3



- Pinch the rear panel with your fingers, and lift it away from the iPhone. Alternatively, use a [Small Suction Cup](#).

! Be careful not to damage the plastic clips attached to the rear panel.

Step 4 — Battery



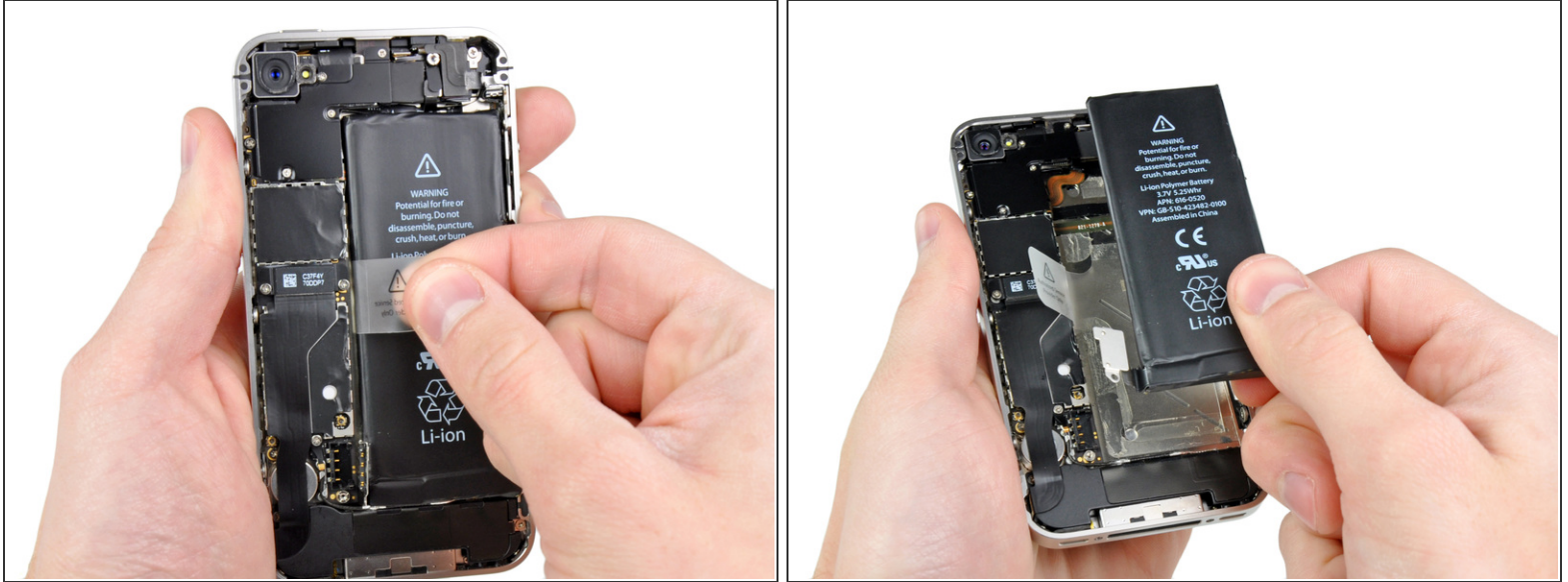
- Remove the single 1.5 mm Phillips screw securing the battery connector to the logic board (if present).

Step 5



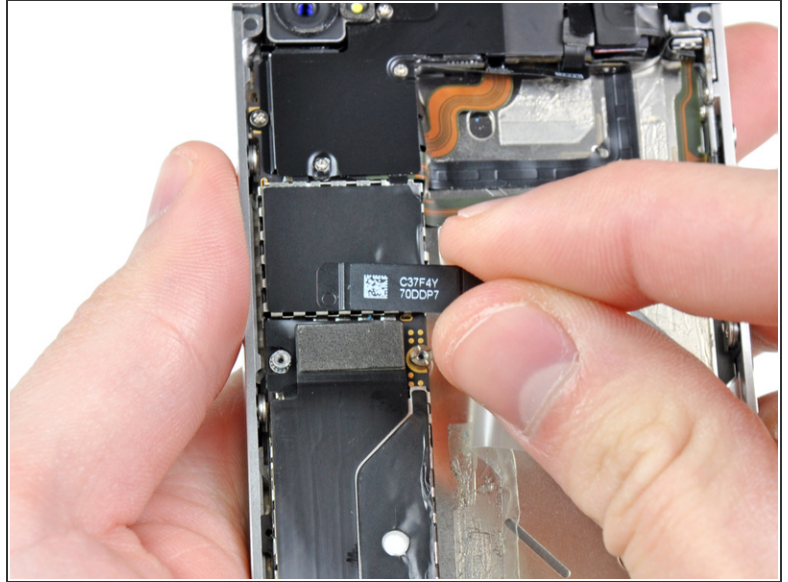
- Use the edge of a plastic opening tool to gently pry the battery connector up from its socket on the logic board.
- ⚠ Be very careful to only pry up on the battery connector and not the socket on the logic board. If you pry up on the logic board socket, you may break it entirely.
- Remove the metal clip covering the antenna connector.

Step 6



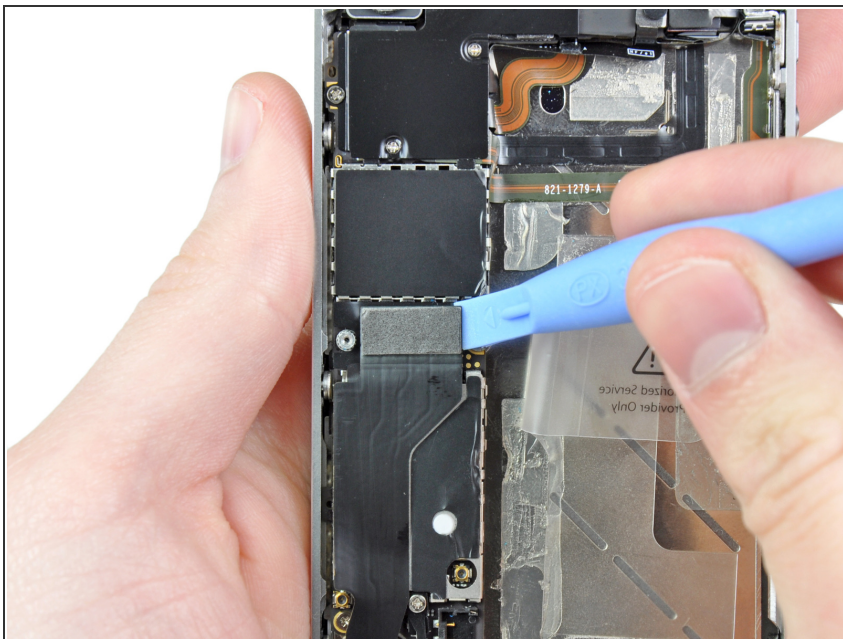
- Pull up on the exposed clear plastic tab to peel the battery off the adhesive securing it to the iPhone.
- ⚠ If the tab breaks before the battery is freed, carefully slide a spudger under the battery tab to release the adhesive. Prying in other places may cause damage.
- Remove the battery.
 - Before reassembly, clean metal-to-metal contact points with a de-greaser such as windex. The oils from your fingers have the potential to cause wireless interference issues.
 - Perform a [hard reset](#) after reassembly. This can prevent several issues and simplify troubleshooting.

Step 7 — Dock Connector Cable



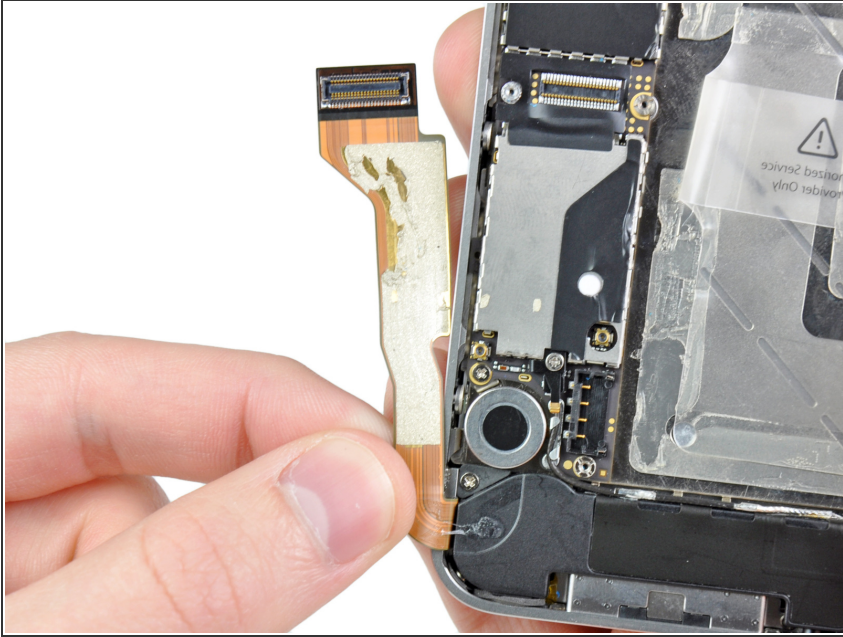
- Remove the two 1.8 mm Phillips screws securing the dock connector cable to the logic board.
- Remove the thin metal dock connector cable cover.

Step 8



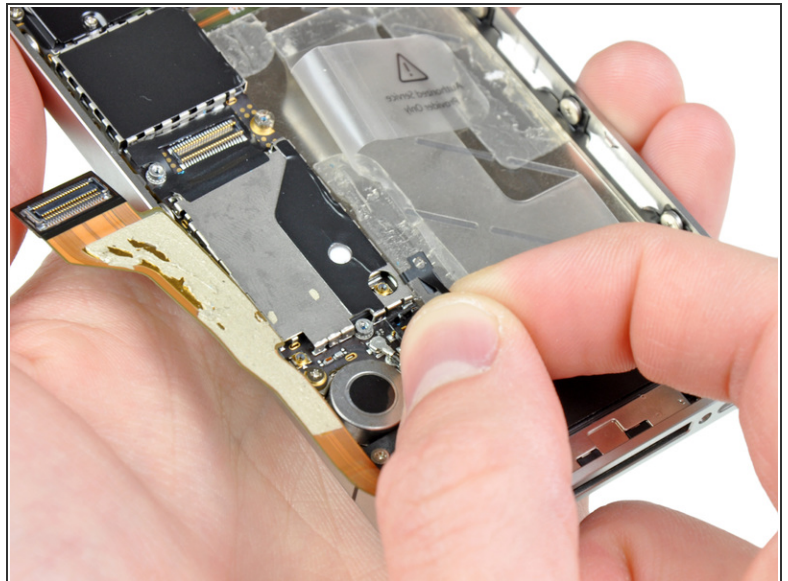
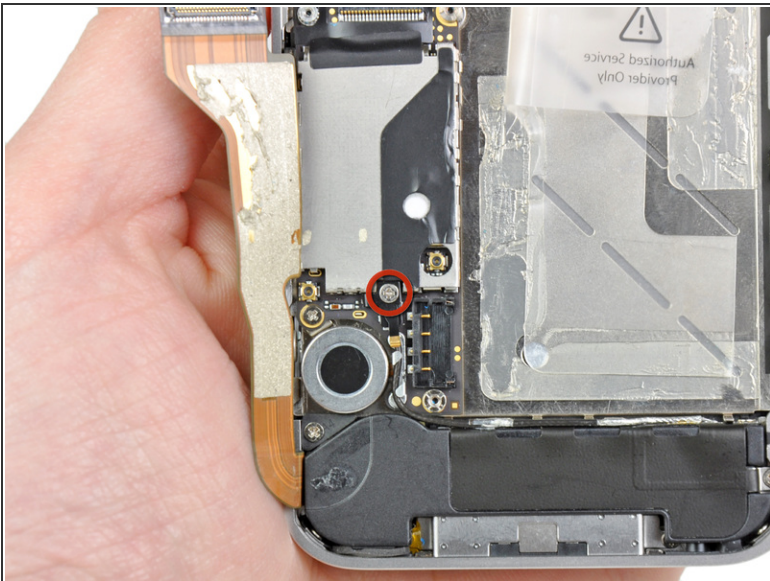
- Use the edge of a plastic opening tool to pry the dock cable up from its socket on the logic board.

Step 9



- Peel the dock connector cable off the adhesive securing it to the logic board and the side of the speaker enclosure.

Step 10



- Remove the 1.6 mm Phillips screw securing the pressure contact to the logic board near the vibrator.
- Remove the pressure contact.

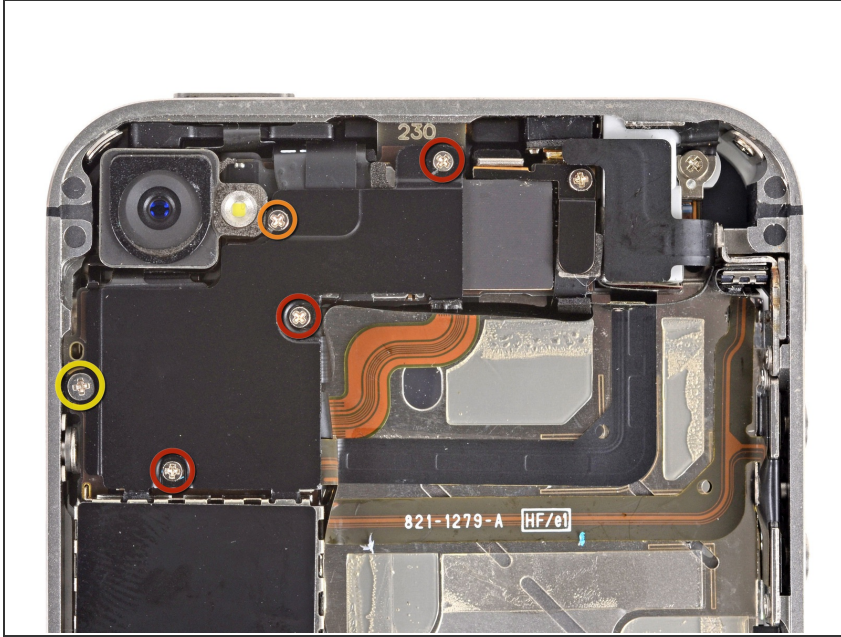
Step 11



- Use the edge of a plastic opening tool to pry the cellular antenna cable up from its socket on the logic board.
- De-route the cellular antenna cable out from under the metal fingers attached to the logic board.

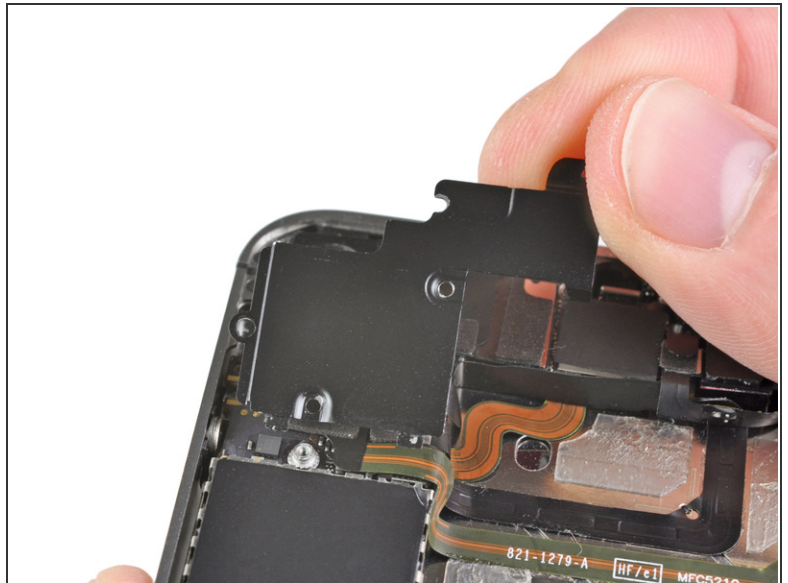
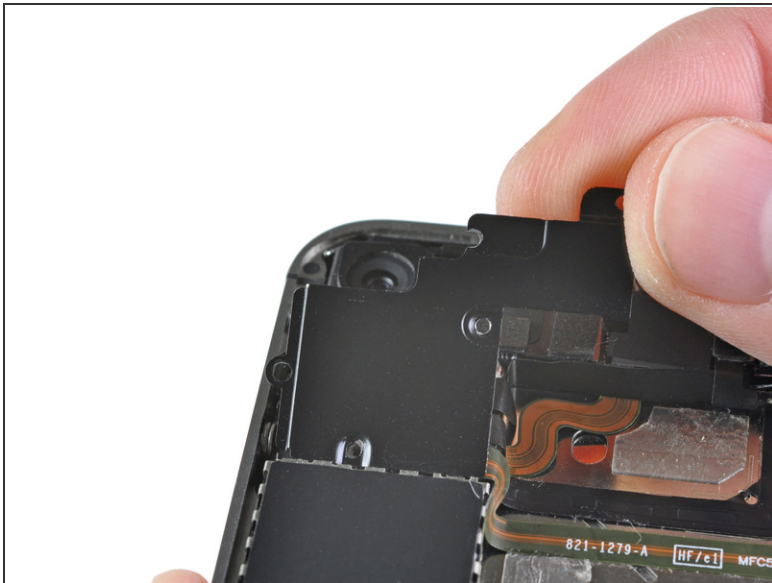
⚠ When reconnecting the antenna wire be VERY certain that the round connector at the end of the wire is centered on its mating half on the motherboard before applying pressure. Failure to do so will likely destroy both halves of the connector.

Step 12 — Rear Camera



- Remove the following five screws:
 - Three 1.3 mm Phillips screws
 - One 1.5 mm Phillips screw
 - One 2.4 mm Phillips screw

Step 13



- Lift the cable cover from its edge nearest the top of the iPhone.
- Pull the cable cover tabs out of their slots cut into the EMI shield on the logic board and remove it from the iPhone.

Step 14



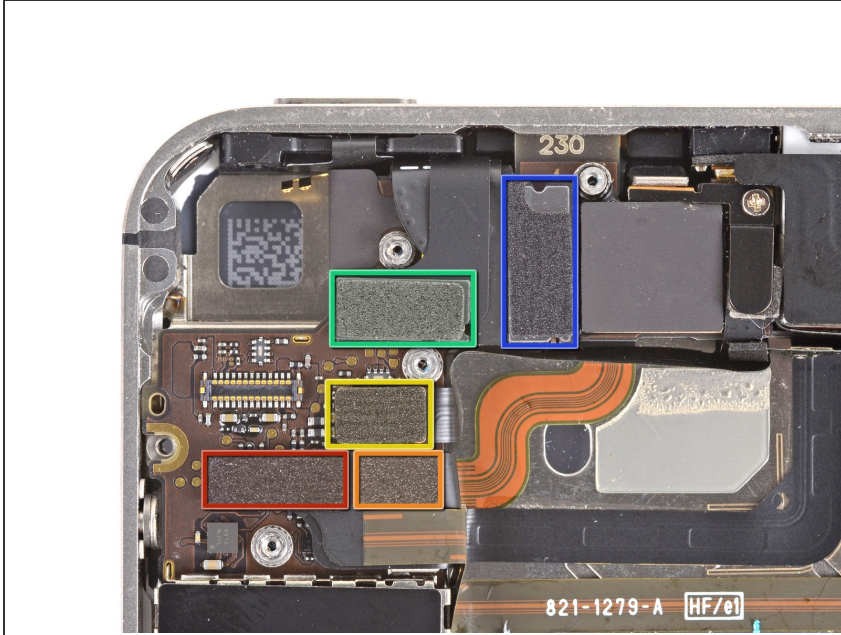
- Use the edge of a plastic opening tool to pry the rear camera connector up from its socket on the logic board.

⚠ Be careful not to break any components off the surrounding area on the logic board as you pry upwards.


- Remove the rear camera from the iPhone.

⚠ Be careful not to scratch the back of the display assembly after the removal of the rear facing camera.

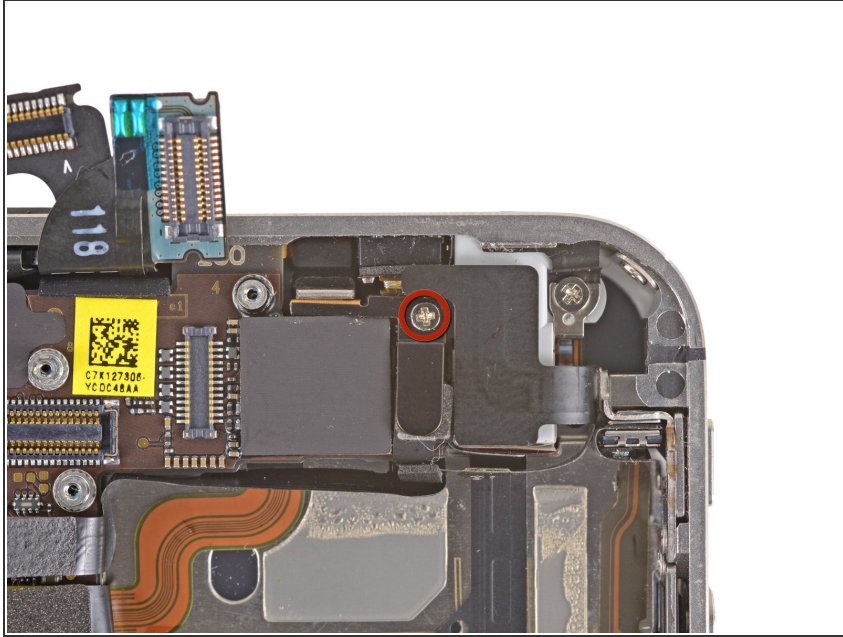
Step 15 — Logic Board



- Disconnect the five cables near the top of the logic board in the following order:
 - Headphone jack/volume button cable
 - Power button cable
 - Front facing camera cable
 - Digitizer cable
 - Display data cable
- To disconnect the cables, use the edge of a plastic opening tool to gently lift their connectors up and out of the sockets on the logic board.

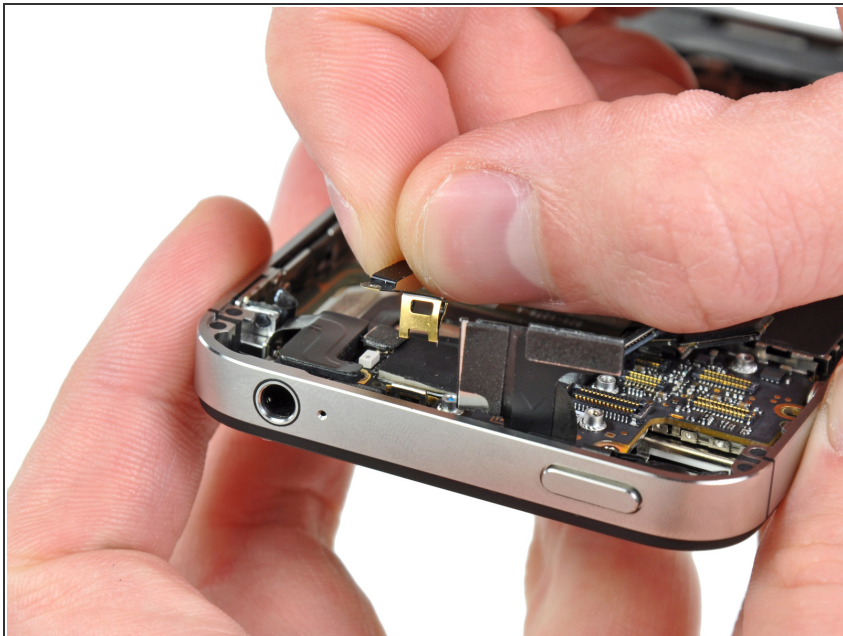
 Be careful not to break any of the small and delicate surface mount components as you disconnect the cables.

Step 16



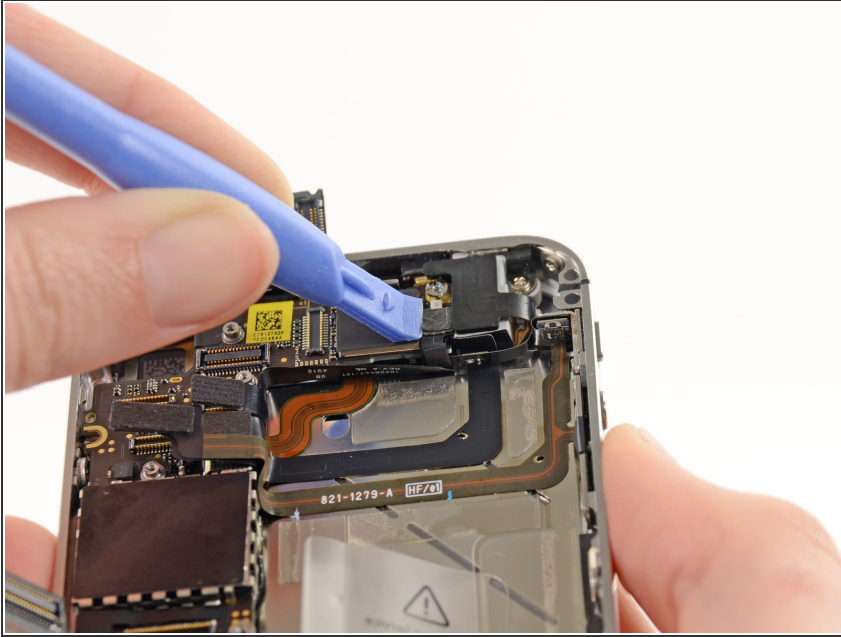
- Remove the 1.5 mm Phillips #000 screw near the headphone jack.

Step 17




- Lift the small grounding clip up off the logic board and remove it from the iPhone.

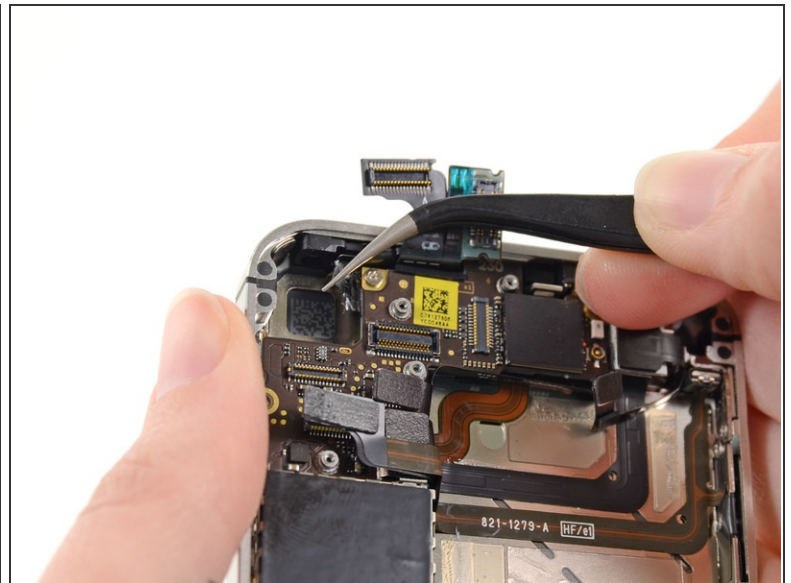
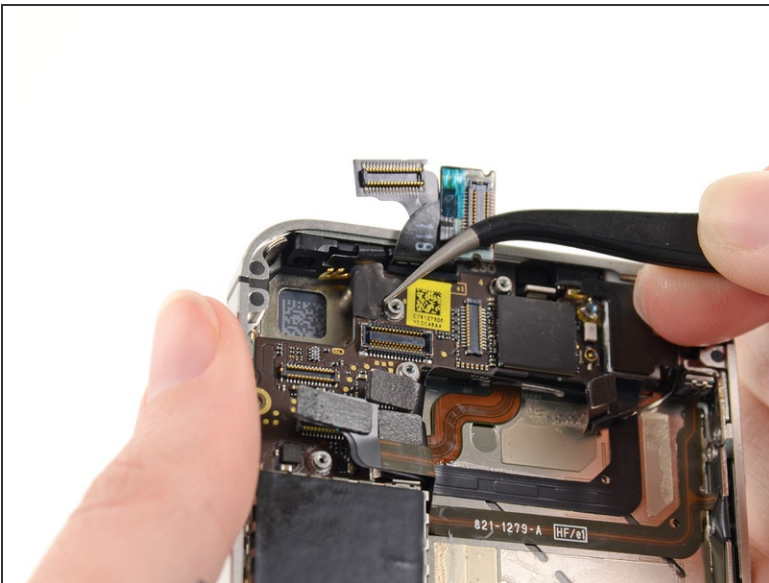
Step 18



- Use the edge of a plastic opening tool to disconnect the Wi-Fi antenna cable connector from the logic board.

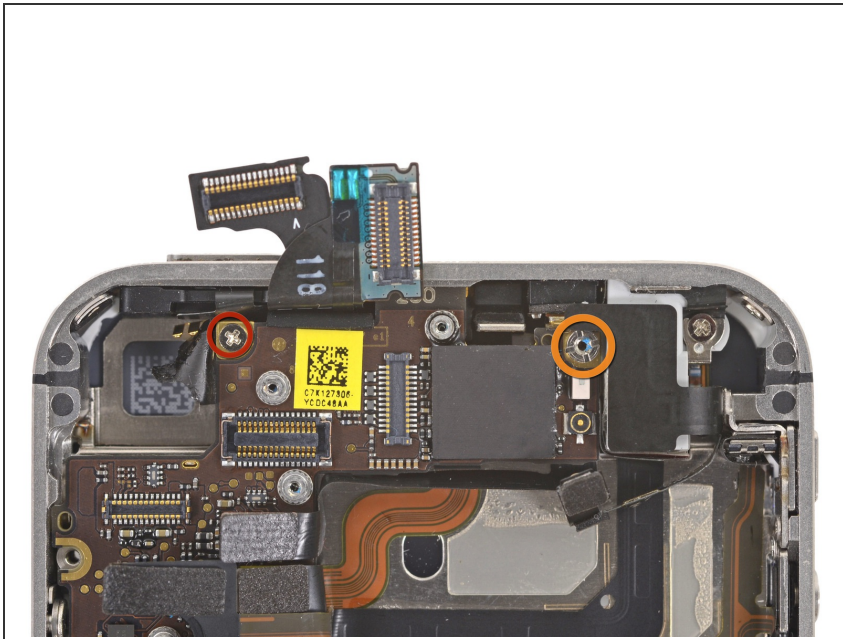
 When reconnecting the wifi ribbon connector to the mother board be VERY certain that the round connector at the end of the ribbon cable is centered on its mating half on the motherboard before applying pressure. Failure to do so will likely destroy both halves of the connection.

Step 19



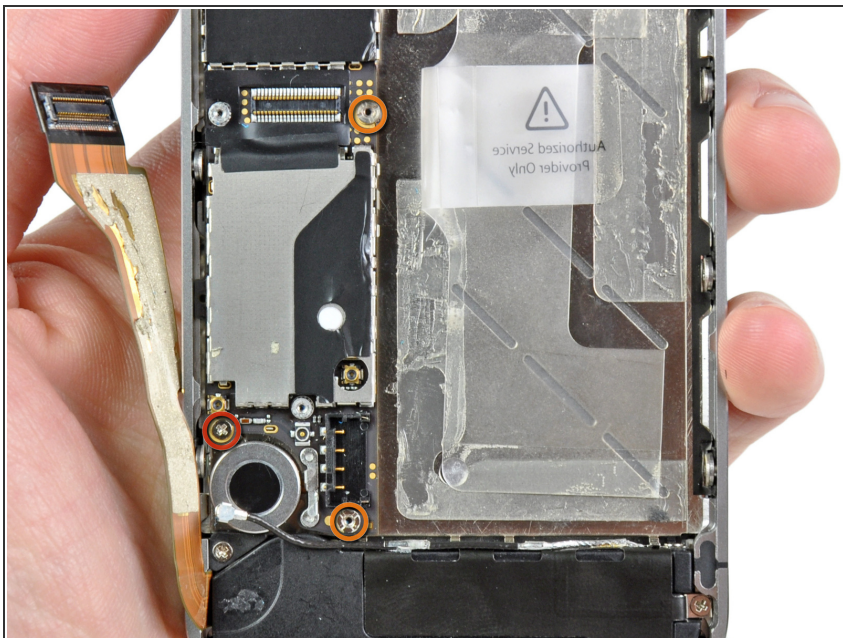
-  If present, remove the piece of tape covering a Phillips screw near the power button.

Step 20



- Remove the 2.5 mm Phillips #000 screw securing the logic board near the power button.
- Use a small flathead screwdriver to remove the 4.8 mm standoff screw near the headphone jack.

Step 21



- Remove the 3.4 mm Phillips screw near the vibrator motor.
- Use a small flathead screwdriver to remove the two 3.6 mm standoffs along the side of the logic board nearest the battery opening.

Step 22

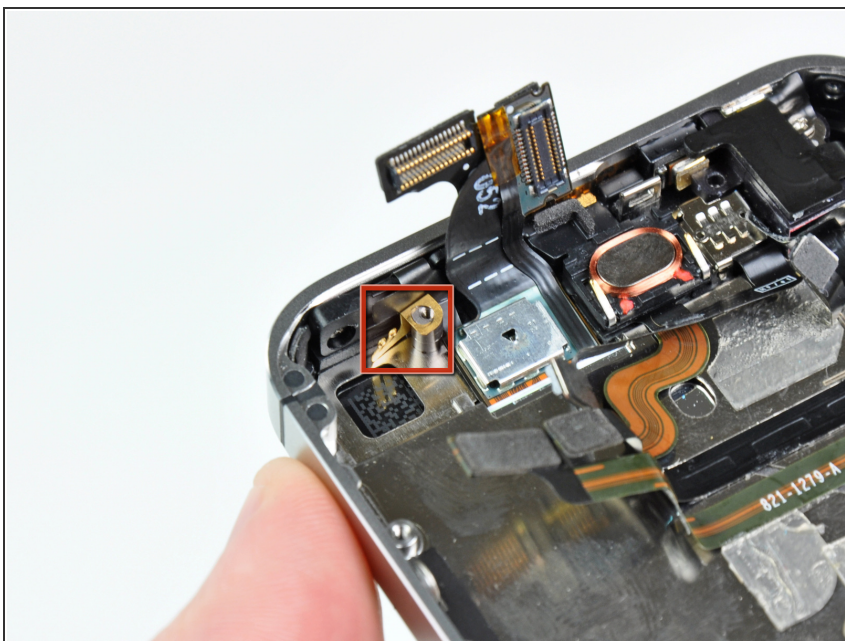


- Carefully lift the logic board from the end closest to the speaker enclosure and slide it away from the top edge of the iPhone.
- Remove the logic board.

⚠ Before reassembly, be sure to clean all metal-to-metal contact points on the logic board (**not** the mating halves of connectors) with a degreaser such as windex or isopropyl alcohol. The oils on your fingers have the potential to cause grounding issues.

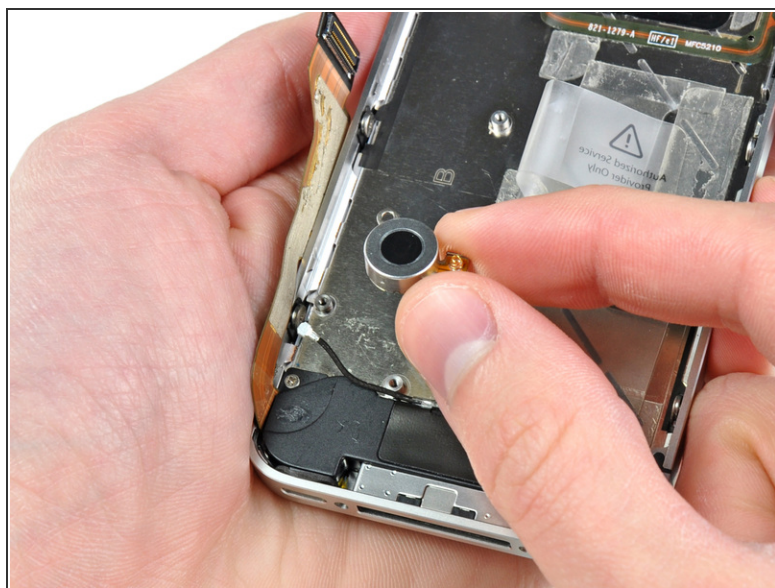
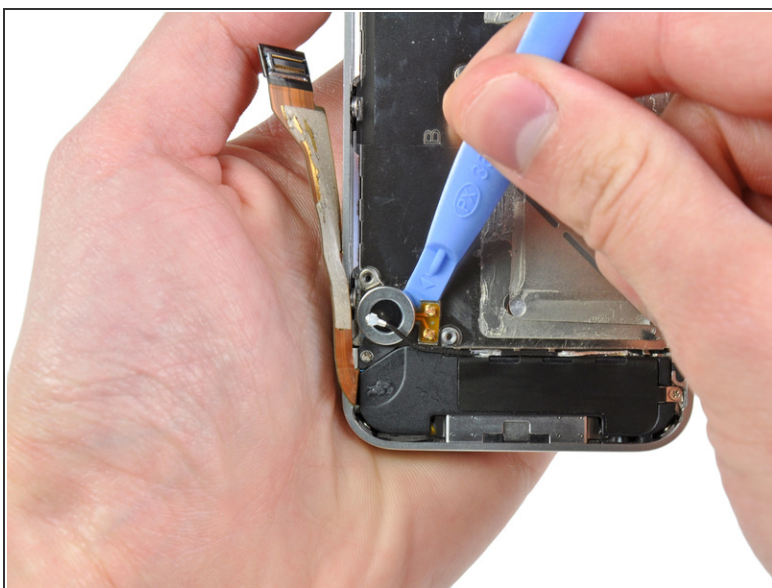
★ There's a small rectangular rubber pad at the top of the logic board that prevents the display cables from chafing against the edge of the board. If it comes loose during your repair, make sure to [position it correctly](#) when reinstalling your logic board.

Step 23



⚠ Be sure not to lose the small grounding finger for the rear facing camera near the power button.

Step 24 — Vibrator



- Use the edge of a plastic opening tool to pry the vibrator off the adhesive securing it to the frame of the iPhone.
- Remove the vibrator.

Step 25 — Display Assembly



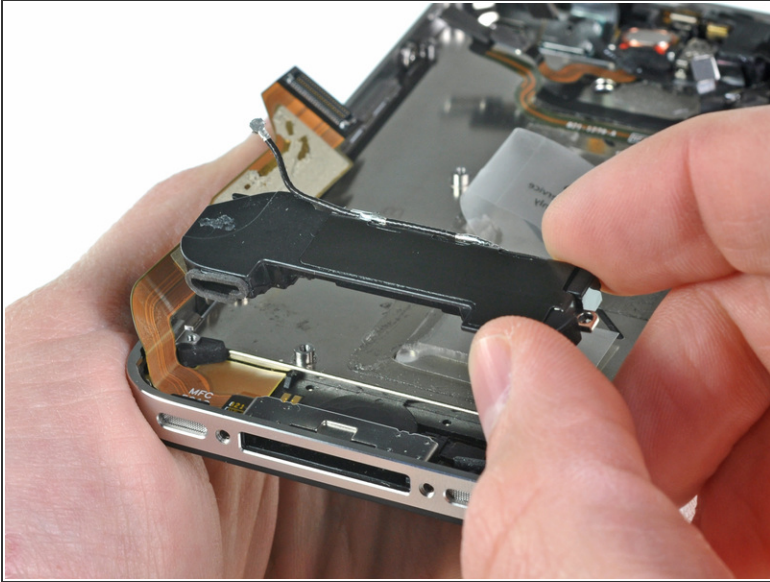
- Remove the two 2.4 mm Phillips screws from the sides of the speaker enclosure assembly.

Step 26



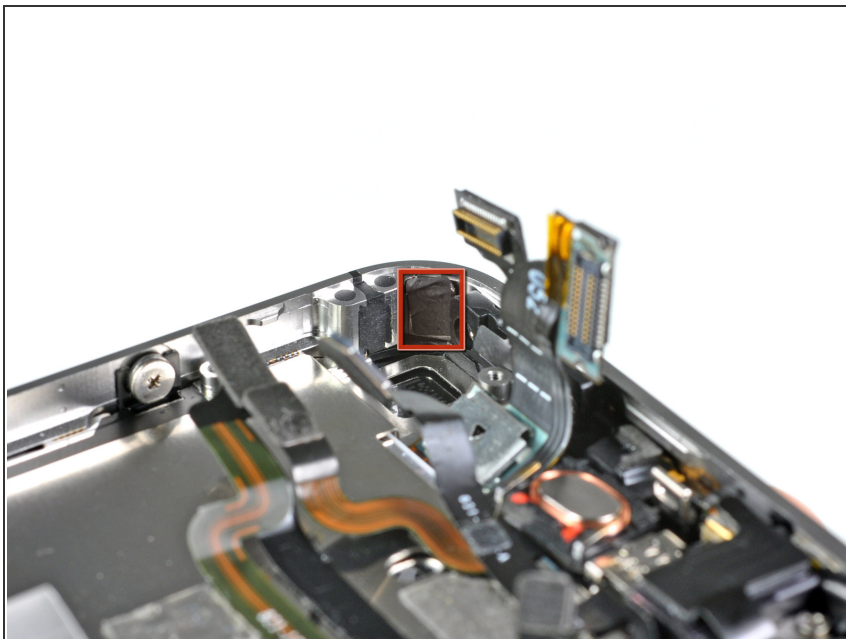
- Remove the small plastic bracket that was installed under the screw closest to the dock connector cable.

Step 27



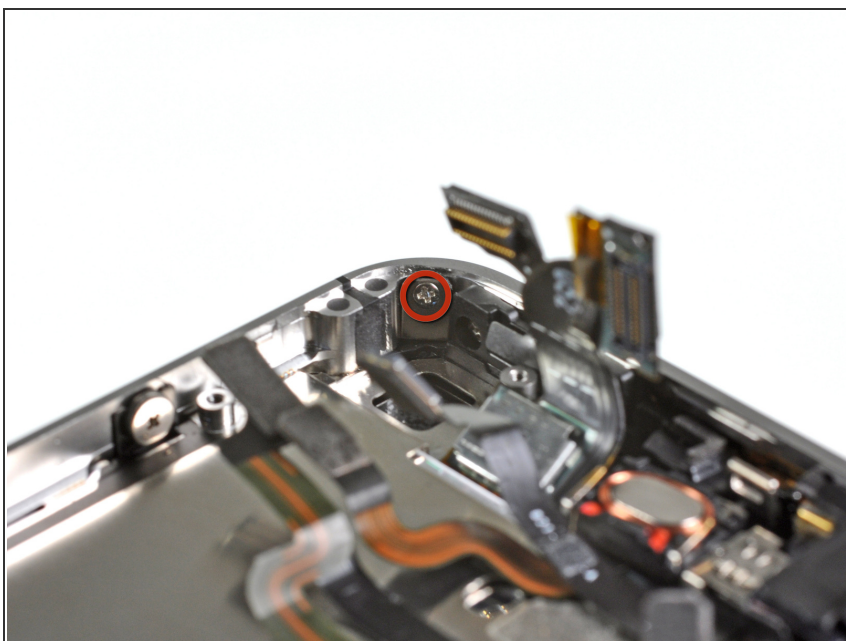
- Remove the speaker enclosure assembly from the iPhone.
- ⓘ Before reinstalling the speaker enclosure assembly's screws, be sure the Wi-Fi grounding fingers are installed below the lip in the iPhone's metal case as seen in the second picture.
- ⚠ Before reassembly, be sure to clean all metal-to-metal contact points between the grounding fingers of the Wi-Fi antenna and the case of the iPhone with a de-greaser such as windex or isopropyl alcohol. The oils on your fingers have the potential to cause wireless interference issues.

Step 28



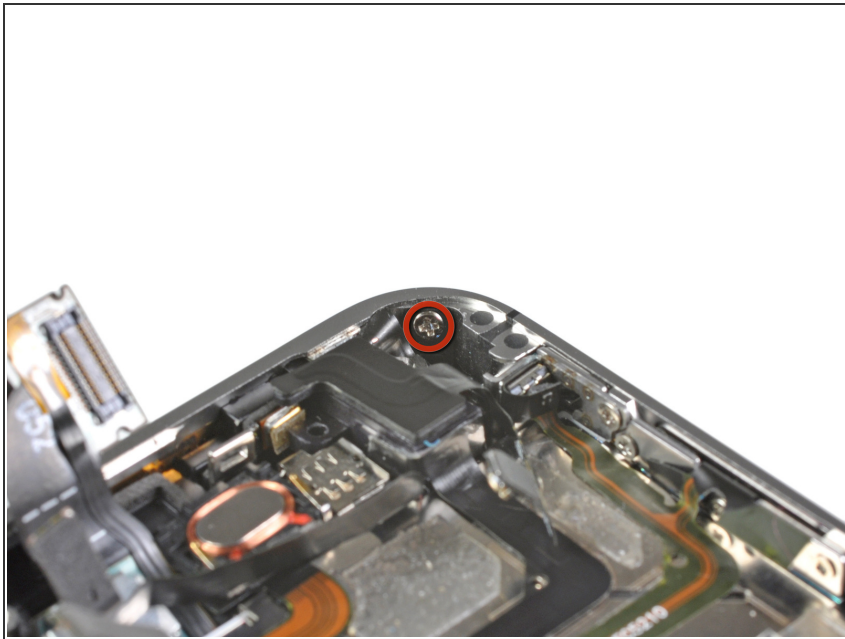
- Remove the small pieces of black tape covering the display mounting tabs.

Step 29



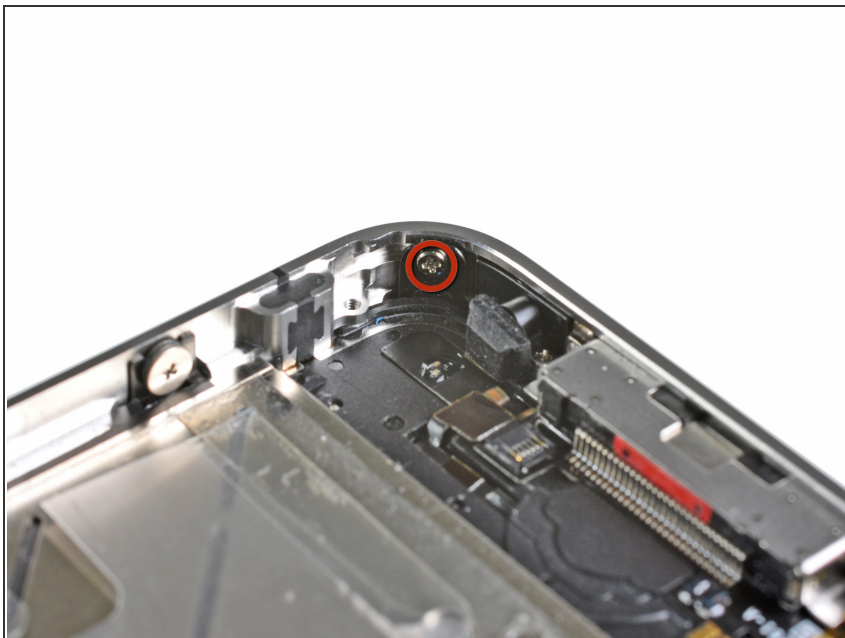
- Remove the 1.6 mm Phillips screw securing the display assembly near the power button.

Step 30



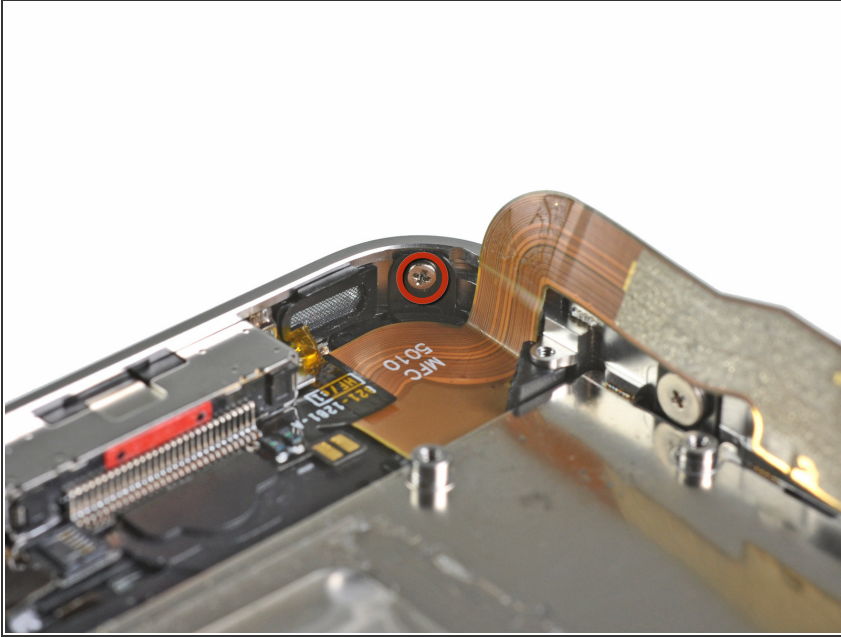
- Remove the 1.6 mm Phillips screw near the headphone jack.

Step 31



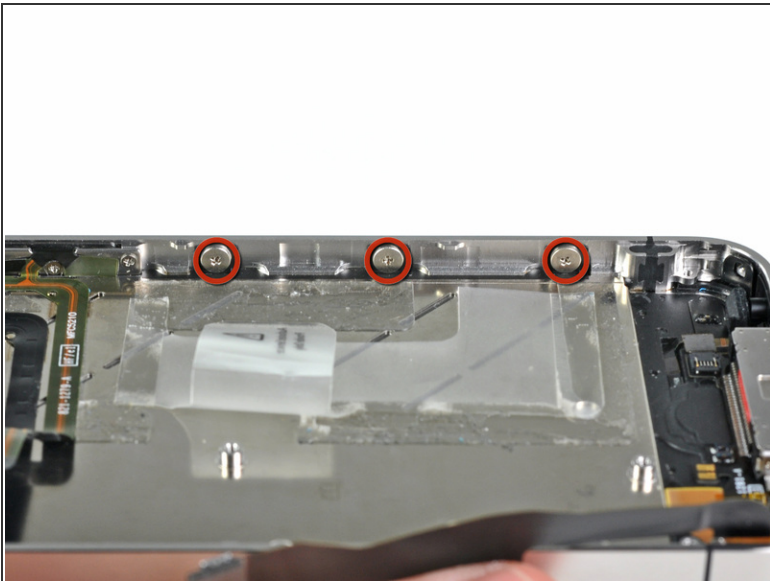
- Remove the 1.6 mm Phillips screw near the lower microphone.

Step 32



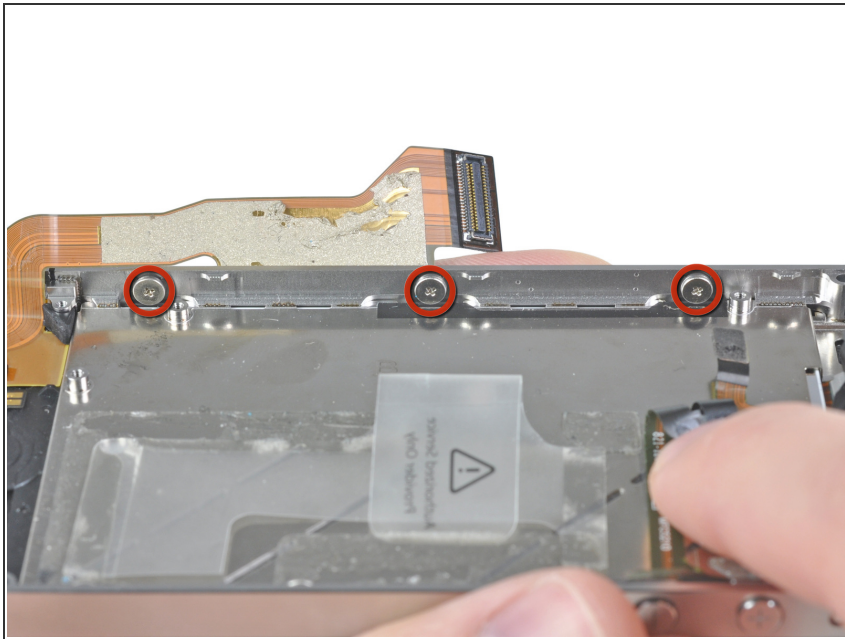
- Remove the 1.6 mm Phillips screw near the dock connector cable.

Step 33



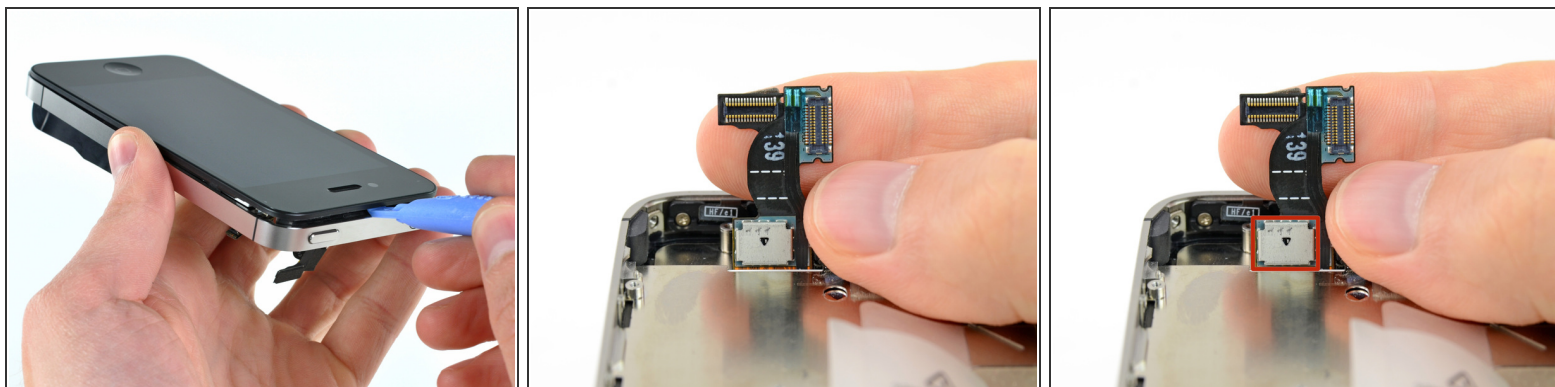
- Loosen the three large-headed Phillips screws along the volume button side of the iPhone about one half turn.
- ⓘ It is not necessary to completely remove these screws. When reinstalling the display assembly, be sure the washers are closest to the screw head (as seen in the second picture).

Step 34



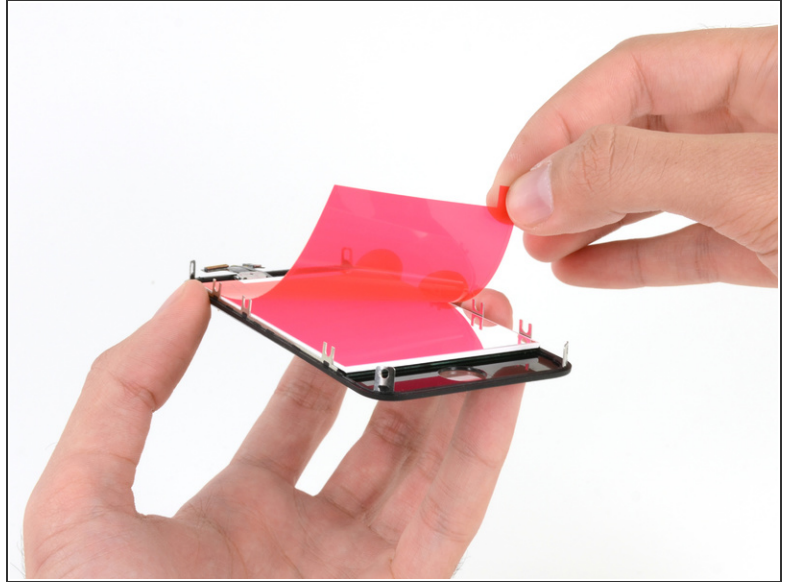
- Loosen the three large-headed Phillips screws along the other side of the iPhone about one half turn.

Step 35




- Use the edge of a plastic opening tool to gently pry up the display assembly around its perimeter.
 - De-route the digitizer and LCD cables through the steel inner frame.
- ✦ When reinstalling the display, carefully straighten the digitizer and LCD data cables, and feed them through the slot cut in the steel frame. [This photo](#) shows the display assembly being installed **incorrectly**, with a fold in the digitizer cable.
- When the front panel has been correctly installed, both the LCD and digitizer cables should be immediately next to one another and should be the same length, as shown in the second photo.
- ⚠ If the digitizer cable has been installed incorrectly, it will not reach its socket on the logic board. **Do not** attempt to pull it through by force, or it will tear. Remove the display assembly, straighten the cable, and feed it through to its full length, as shown.
- During reassembly, do not touch the metallic area at the base of the LCD data cable, as this can cause problems with the LCD. If you do touch it accidentally, clean it gently with an alcohol wipe before continuing.

Step 36



- Remove the display assembly from the iPhone.


 Be sure to separate the home button from the front panel. If the home button sticks to the front panel you may tear the home button cable.

 **When replacing the display assembly**, note the following:

- You may have to reuse the earpiece grille and the clear plastic ring around the front facing camera from the old/damaged assembly. This will depend on where you buy the replacement part.
- Your replacement display may come with colored plastic film on the back of the LCD. If so, use the pull tab near the home button to peel the plastic film from the LCD before installing the new display in your iPhone.

● **After reassembly**, note the following:

- Clean the touchscreen surface with an alcohol wipe prior to turning the iPhone back on. The alcohol helps dissipate any lingering static electricity, which can cause problems with the display.

 After reassembly, connect the iPhone to an AC power source before turning it on for the first time. Once the iPhone has booted up successfully, you can disconnect the AC power.

To reassemble your device, follow these instructions in reverse order.

